

1. A transmission method for a communication device that transmits signals including combined plural categories of data, and transmission format combination indicators representing data traffic of the data in each category and category combination, the transmission method comprising:

5           a prediction step of predicting data traffic of predetermined categories of data;

          a selection step of, among a candidate set of the transmission format combination indicators, selecting transmission format combination indicators, based on the predicted data traffic in the prediction step;

10           a detection step of detecting data traffic of the signals including the combined plural categories of the data;

          a search step of searching, among the transmission format combination indicators selected in the selection step, for a transmission format combination indicator matching with the data traffic detected in the  
15   detection step; and

          a transmission step of transmitting the transmission format combination indicator searched for and determined in the search step, together with the signals.

20   2. A transmission method for a communication device as recited in claim 1, wherein the prediction step predicts data traffic of audio data.

3. A transmission method for a communication device as recited in claim 2, wherein the prediction step predicts the data traffic being null when the  
25   audio data has been determined to be absent multiple consecutive times

before the prediction is performed.

4. A transmission method for a communication device that transmits signals including combined plural categories of data, and transmission  
5 format combination indicators representing data traffic of the data in each category and category combination, the transmission method comprising:

a prediction step of predicting data traffic of the signals including combined plural categories of data;

a signal generation step of, in a case where the data traffic  
10 predicted in the prediction step exceeds a predefined value, generating a candidate signal in which predefined low-priority categories of transmission data are excluded from the plural categories of the data, so that the data traffic may fall within the predefined value;

a search step of searching, among a candidate set of the  
15 transmission format combination indicators, for a transmission format combination indicator matching with the candidate signal generated in the signal generation step; and

a transmission step of transmitting the transmission format combination indicator searched for and determined in the search step,  
20 together with the candidate signal.

5. A transmission method for a communication device as recited in claim 4, the transmission method further comprising:

a prioritizing step of prioritizing searches for the candidate set of  
25 the transmission format combination indicators based on the transmission

priority of the data, wherein

the search step searches for transmission format combination indicators according to the searching priority.

- 5 6. A transmission method for a communication device as recited in claim 4, the transmission method further comprising:

a selection step of selecting, among the candidate set of the transmission format combination indicators, transmission format combination indicators that do not include low-priority categories of the transmission data; wherein

10

the search step searches for transmission format combination indicators among the transmission format combination indicators selected in the selection step.

- 15 7. A transmission method for a communication device as recited in claim 4, wherein:

the plural categories of the data include audio data and other data in which data traffic has been predetermined, and

in the prediction step, the prediction is performed based on data traffic of the audio data.

20

8. A transmission method for a communication device as recited in claim 7, wherein the prediction step predicts the data traffic of the audio data being null when the audio data has been determined to be absent multiple consecutive times before the prediction is performed.
- 25